

DWPI

DERWENT-ACC-NO: 1986-170791

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TITLE: Decorative surfacing sheet for abrasion resistant
laminates - made by
coating and impregnation of decor paper with liq. thermosetting
resin contg.

abrasion fine particles

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EP 186257 A	July 2, 1986	E	025
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JP 61152896 A	July 11, 1986	N/A	000
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BR 8502576 A	December 23, 1986	N/A	000
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US 4713138 A	December 15, 1987	N/A	000
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IL 75058 A	February 28, 1989	N/A	000
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CA 1259535 A	September 19, 1989	N/A	000
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EP 186257 B	April 18, 1990	N/A	000
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DE 3577218 G	May 23, 1990	N/A	000
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JP 2556466 B2	November 20, 1996	N/A	010

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EP 186257A	N/A	1985EP-0303038
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RELATED-ACC-NO: 1991-252051;1992-096225

ABSTRACTED-PUB-NO: EP 186257A

BASIC-ABSTRACT: Decorative paper for use in the mfr. of
abrasion-resistant

laminates without an overlay paper, is made by (a) preparing a
mixt. of a liq.

thermosettable saturating resin (I) and an abrasion-resistant
compsn. (II), the

mixt. during coating and impregnation having a viscosity of no
greater than ca.

200 centipoise; the (II) being a mixt. of (i) an
abrasion-resistant hard

mineral (IIa) of fine particle size in an amt. sufficient to
provide an

abrasion resistant layer without interfering with visibility, and
(ii) binder

material (IIb) for (i) capable of withstanding the subsequent
laminating

conditions and being compatible with the (I), (IIb) being present
in an amt.

sufficient to bind the (IIa) to the surface of the decor sheet
and the (IIb)

suspending the particles (IIa) in the (I); (b) coating and
impregnating the

mixt. in one step over the facing surface of the decor sheet at a
rate such

that the sheet becomes essentially satd. with the liq. resin and
(II) becomes

deposited on the facing surface in an ultra thin layer, the mixt.
having a

viscosity of not more than 200 centipoise during satn. of the
decor sheet; and

(c) drying the coated and impregnated sheet at an elevated temp.

ADVANTAGE - The abrasion resistant particles remain in suspension
during

processing and the base sheet is impregnated and the
abrasion-resis tant layer

is applied in a single processing step without intermediate
drying or double

handling. The impregnated/coated papers give high or low
pressure laminates

with a durable abrasion resistant surface which is free from
mottling and other

defects, without using an overlay paper.

ABSTRACTED-PUB-NO: EP 186257B

EQUIVALENT-ABSTRACTS: A method of providing decor paper for use in the manufacture of abrasion-resistant decorative laminates without an overlay layer, the method comprising providing a liquid thermosettable saturating resin and an abrasion-resistant composition for coating and impregnating the facing surface of the decor sheet with the abrasion-resistant composition becoming deposited on said facing surface in an ultra-thin layer, said abrasion-resistant composition comprising a mixture of an abrasion-resistant hard mineral of fine particle size in quantity sufficient to provide an abrasion resistant layer without interfering with visibility and binder material for said mineral, which binder material has the properties of withstanding the subsequent laminating conditions and being compatible with said thermosettable resin, said binder being present in an amount sufficient to bind abrasion-resistant mineral to the surface of said decor sheet; the method further including coating and impregnating the decor sheet and drying said coated and impregnated decor sheet at an elevated temperature, characterized in that a mixture of said liquid thermosettable saturating resin and said abrasion-resistant composition is prepared with said binder material suspending said abrasion-resistant hard mineral particles in said liquid thermosettable impregnating resin, and said coating and impregnating is effected in essentially one step by coating said mixture of said liquid thermosettable impregnating resin and said abrasion-resistant composition over the facing surface of said decor sheet at a rate such that said decor sheet becomes substantially saturated with said liquid resin and said abrasion-resistant composition becomes deposited on said facing surface in an ultra-thin layer' which is not, in the final laminate, of more than about 10.16

micron (0.4 mils)
and said mixture having a viscosity no greater than about 200
mPa.s
(centipoise) during saturation of said decor sheet. (14pp)

US 4713138A

Abrasion resistant decorative laminate is produced by
simultaneously
impregnating and a coating a laminate decor sheet with a mixture
of liquid
impregnating resin and an abrasion-resistant composition of
microcrystalline
cellulose and abrasion-resistant mineral particles such as
alumina. The liquid
resin is absorbed leaving a very thin abrasion resistant layer.

ADVANTAGE - Less expensive laminates are obtd. (8pp)1

CHOSEN-DRAWING: Dwg.0/0

DERWENT-CLASS: A94 F09 P42 P73

CPI-CODES: A11-B05; A12-A04A; A12-B03A; F05-A06B;